Decision Support Briefing Southeast River Forecast Center



Hydrologic Vulnerability Assessment



Issued: 1:23 PM ET Thursday, February 9, 2023







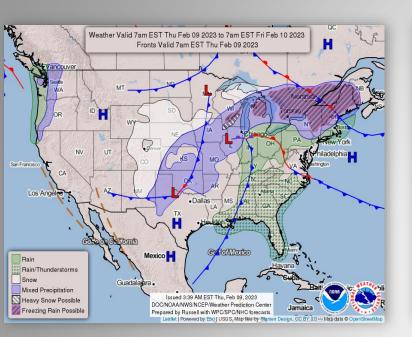
- Heavy rain moving into the southeast US is expected to produce bankfull and minor river flood rises in Alabama, Georgia, and South Carolina.
- There is a potential for some moderate river rises from this weekends rain.
- Next weeks rain could make conditions worse across areas that have already received rainfall this weekend. There is still some uncertainty in magnitude and location of each of the events.
- Please check back often for updates to forecasts that could impact communities in your area.

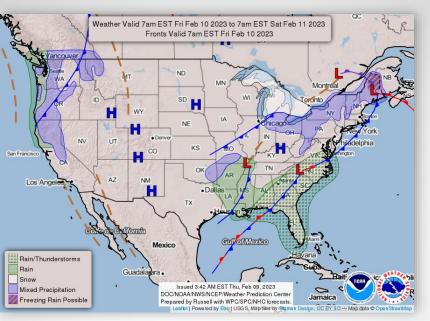
Latest Weather Condition

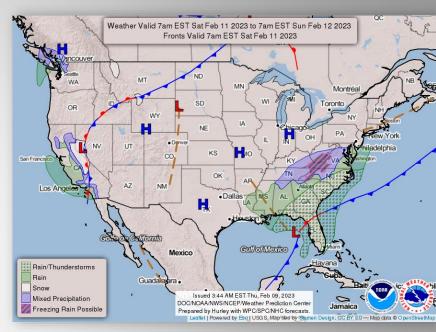
Southeast River Forecast Center

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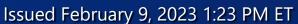
Decision Support Briefing



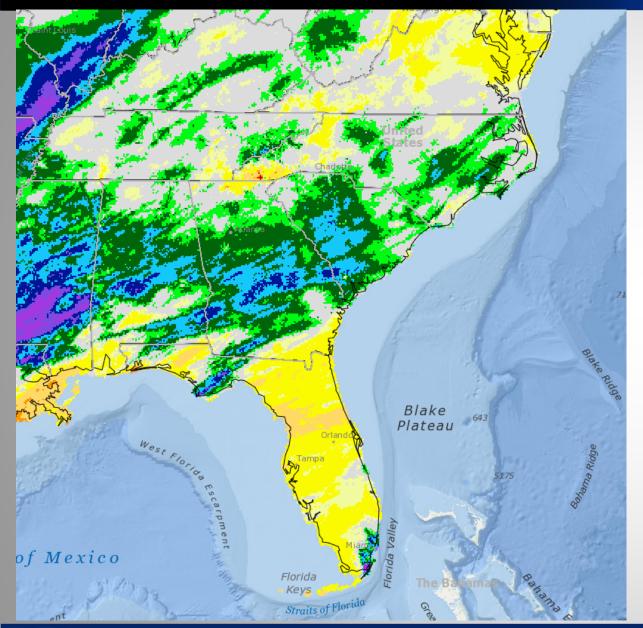




Low Pressure in the in the Midwest will push south. A cold front currently draped through the southeast US will move south and east into the weekend. Due to the slow movement of this weather system, it increases the potential for heavy rainfall. Location of the rainfall will help determine flood potential.







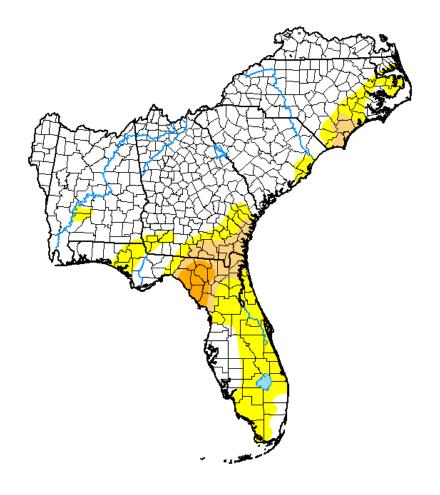
Rainfall in the last 30 days has improved drought conditions across the southeast US. However, it has also left many areas vulnerable to flooding due to above normal rainfall.

Mississippi, Alabama, Georgia and South Carolina are especially susceptible at this time.

This is our recharge/flood season in the Southeast, aside from the Florida peninsula. With heavy rain in many areas, flooding is possible, with some river rises potentially being significant.



U.S. Drought Monitor Southeast RFC



February 7, 2023

(Released Thursday, Feb. 9, 2023) Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	74.49	25.51	6.99	1.81	0.00	0.00
Last Week 01-31-2023	67.90	32.10	9.43	1.73	0.00	0.00
3 Month's Ago 11-08-2022	32.17	67.83	31.64	14.04	0.00	0.00
Start of Calendar Year 01-03-2023	51.77	48.23	23.63	5.81	0.00	0.00
Start of Water Year 09-27-2022	65.91	34.09	5.07	0.00	0.00	0.00
One Year Ago 02-08-2022	74.21	25.79	1.52	0.00	0.00	0.00

Intensity:

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions.

Local conditions may vary. For more information on the

Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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National Drought Mitigation Center







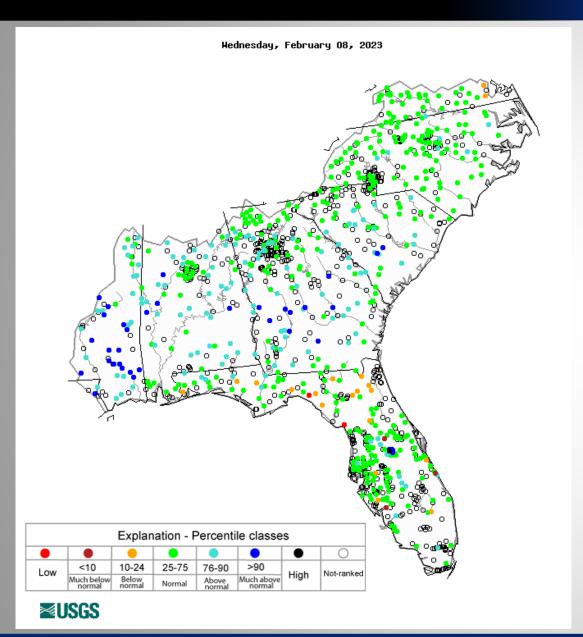


droughtmonitor.unl.edu

The drought areas have been shrinking across the southeast US as rain continues to be above normal in many areas.

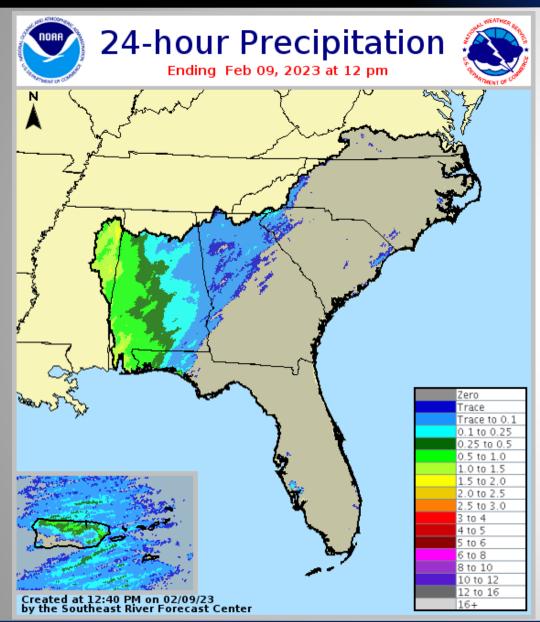
This leaves us more vulnerable to flooding when rain does occur across the area.

14-day Average Streamflow

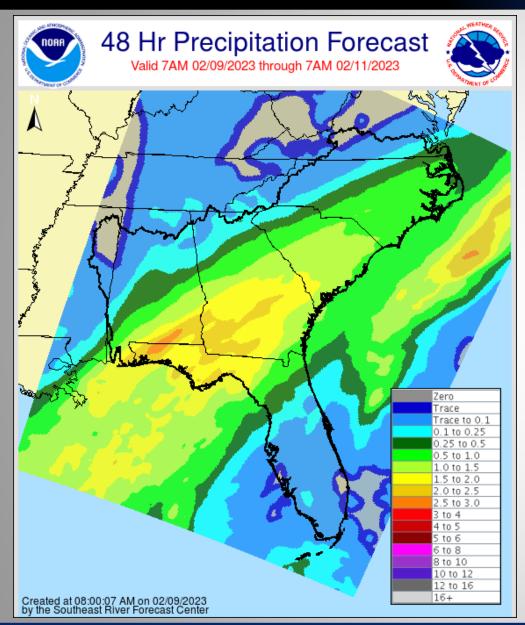


Streamflows are in the normal to above normal range for the last 14 days.

Recent rainfall has left rivers and creeks primed for potential flooding across most of the southeast.

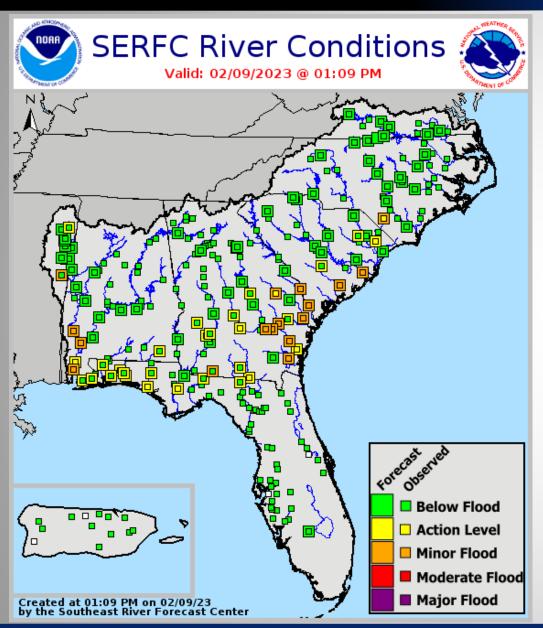


Rain has already begun moving into the forecast area as this event progresses slowly through the weekend.



Here is the 48-hour rainfall forecast that was included in our river models this morning.

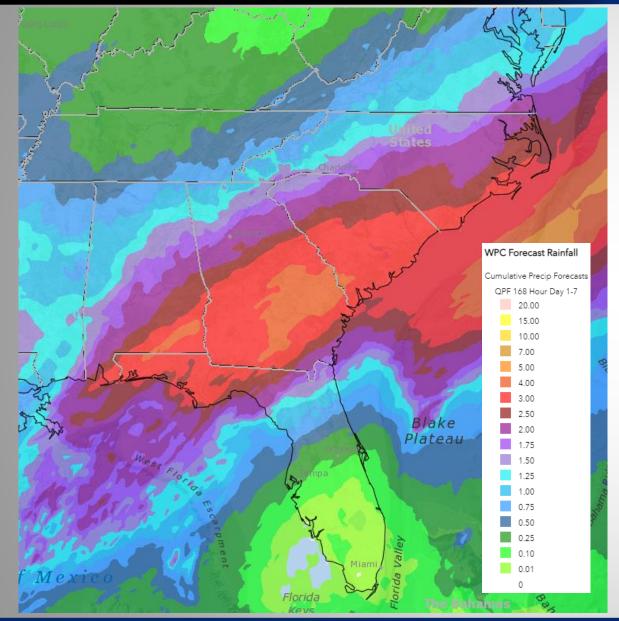
The graphic on the following slide shows river forecasts that reflect both past rainfall and the forecasted rainfall shown here.



Here are the river forecasts issued this morning that include a 48-hour rainfall forecast.

Numerous bankfull and flood stage forecasts are indicated. Many of the forecasts are along both the Gulf and Atlantic coasts. The panhandle of Florida is only showing bankfull rises at this time.

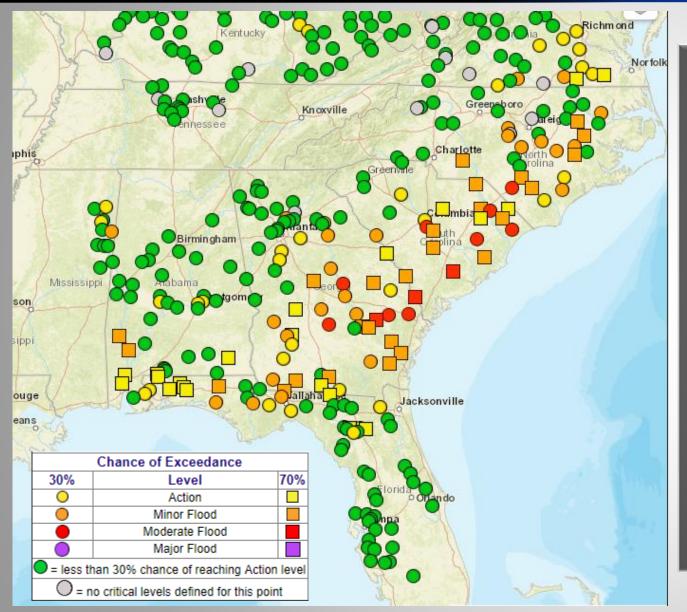
Several points that have been in flood from recent rainfall in Georgia and South Carolina will likely rise again and remain in flood for a longer period of time.



This weekends event will bring much rain to the area. The longer range outlook that stretches into next week indicates another potentially heavy rainfall event.

The two consecutive events could increase river flows and stages even more. While there is still some uncertainty in the magnitude and location of the rain next week, because of the rain this weekend, most of the southeast will remain at risk for flooding.

Meteorological Model Ensemble Forecast



The Meteorological Model Ensemble Forecast System (MMEFS), to the left, is using the NAEFS model and addresses uncertainty in the longer lead rainfall forecast that helps to provide a confidence level for potential flooding. The NAEFS runs in our model every 12 hours.

The model indicates numerous points that could rise to moderate flood stage in Georgia and South Carolina. North Carolina and Virginia become more active as rain during next weeks event.

To take a closer look, here is the link to more detailed information:

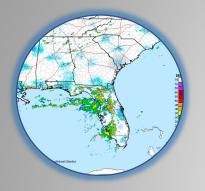
https://www.weather.gov/erh/mmefs



- SERFC will remain on normal operations but could transition to extended hours this weekend. Please contact us if you have any questions or concerns.
- The Daily Operational Support message will continue until further notice.

Latest River Stages and Forecasts are available...click here!

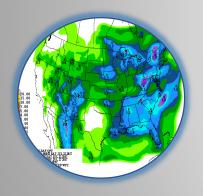
Please send all operational correspondence to sr-alr.rivers@noaa.gov or call the office directly.



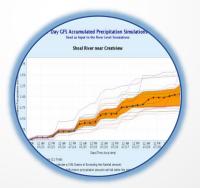
Latest Radar



SERFC Quick Brief



Latest Forecast Rainfall



MMEFS - Ensemble River Forecasts

- This product has set the stage for the upcoming event. The Decision Support Briefing will begin tomorrow to update you on current conditions and changes to the forecast.
- These slides are intended for your use. Please feel free to share these with others. If you have any questions please email sr-alr.rivers@noaa.gov or contact your local NWS Weather Forecast Office.
- <u>Remember</u>: SERFC briefings cover freshwater flooding. For information on coastal and tidal flooding, flash floods, winds, and severe weather risks, please contact your local Weather Forecast Office.